

STATEMENT OF ANTHONY J. BRODERICK, ASSOCIATE ADMINISTRATOR FOR  
REGULATION AND CERTIFICATION, FEDERAL AVIATION ADMINISTRATION,  
BEFORE THE HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,  
SUBCOMMITTEE ON AVIATION, CONCERNING H.R. 4025. JULY 12, 1990.

Mr. Chairman and Members of the Subcommittee:

I am pleased to have the opportunity to appear before the Subcommittee today to provide the Federal Aviation Administration's views on H.R. 4025, which is currently pending before the Subcommittee.

H.R. 4025 would mandate the use of child safety seats in air transportation. We applaud the safety concerns that underly H.R. 4025 but are opposed to its enactment because mandating the use of child safety seats would lead to more lives lost than saved, and to more disabling injuries than avoided.

At the outset, I want to make clear that the use of approved child safety seats for infants provides a greater level of safety in the event of an airplane crash. Parents should be aware that the use of a child safety seat can increase the likelihood of their child surviving a crash which is otherwise survivable. There should be no debate about that point nor should there be any question about whether the FAA believes that child safety seats should be used. We do. We strongly encourage parents to use approved safety seats for their children.

We cannot support, however, the requirement in H.R. 4025 that the use of child safety seats be made mandatory. Our concern is that, while the chance of survival aboard an airplane may be slightly improved, the costs associated with mandating the carriage of a child in a separate seat will divert a significant number of families from our safest form of transportation--air travel--to the far less safe travel by automobile.

Simply stated, we believe that more people would die each year as the result of the enactment of H.R. 4025 than would be saved by its provisions. This concern has been reinforced by four separate studies which have been performed by outside organizations, and which I shall make available for the record. Let me elaborate.

We believe that passengers would be diverted to automobile travel since it would be extraordinarily expensive for consumers if child safety seat use were mandated. Unlike the costs of TCAS or windshear detection systems or aging aircraft modifications, the costs of mandated safety seats would not be imposed on the airlines to be accepted as a cost of doing business or to be distributed as a modest price increase among passengers generally. Instead, the cost of requiring safety seats would be borne by a select group--the families of infants. One study projects that cost to be an average of \$185 per child, amounting to \$250 million each year. The 100% use of child safety seats

would save approximately 1 life aboard an aircraft over a 10-year period, at a potential cost of \$2.5 billion to children's families.

In our view, and in the view of others who have assessed this issue, a significant number of families who would have flown will elect to travel by automobile instead, leading to a greater risk of death not only to the children, who are the intended beneficiaries of H.R. 4025, but to their parents and brothers and sisters who will be in the automobile with them. A December 1987 study by Richard B. McKenzie and John T. Warner entitled "The Impact of Airline Deregulation on Highway Safety," found that the lower costs of airfares resulting from deregulation had improved highway safety by encouraging more people to fly rather than to drive. The converse would appear to be equally true--increased costs can divert passengers from airplanes back to the highways.

Dick Smith, Chairman of the Australian Civil Aeronautics Authority, in a June 6, 1989, article--"You'll live longer in the air"--which was published in the Australian business periodical, The Bulletin, says: "the figures show that all forms of paid air travel are safer than travelling by car--varying from about twice as safe if you have chartered a small plane, to five times as safe in a small commuter aircraft, to 400 times safer with the airlines. . . . After a study of the safety comparisons between air and road, it is fair to ask why there seems to be so little concern about road safety."

A study performed by Apogee Research, Inc., in behalf of the FAA finds that "the required use of child safety seats will decrease the expected number of infant fatalities in air transportation, but increase the expected number of infant and non-infant family member fatalities as some families switch to automobiles for travel." The study also concludes that, in the first year of implementation of mandated safety seats, the deaths of those who would be diverted to automobiles would be 20 times greater than the potential lives saved aboard aircraft through safety seat use. ("An Impact Analysis of Requiring Child Safety Seats in Air Transportation," Apogee Research, Inc., June 4, 1990.)

Richard B. McKenzie (professor of economics and finance at the University of Mississippi) and Dwight R. Lee (professor of economics at the University of Georgia), who serve as adjunct fellows at the Center for the Study of American Business at Washington University in St. Louis, also researched the effect of mandating the use of child safety seats. ("Ending the Free Airplane Rides of Infants: A Myopic Method of Saving Lives", 1990.)

Professors McKenzie and Lee observe that those who support a rule change requiring the use of child safety seats "are understandably concerned about the safety of traveling children." They go on to note, however, that such a mandatory requirement, if adopted,

"could have precisely the opposite effect of the one intended: The rule change could increase the travel injuries and deaths of infants and toddlers--and their parents and siblings. These perverse results would likely occur because the rule change would drive up the cost of travel by air and drive many families back to the nation's highways. And car travel remains far more dangerous, at least 30 times more so in terms of death-rate per mile traveled for all travelers--parents and children alike--than air travel by all scheduled (large and commuter) airlines."

Using what they believe to be "reasonably conservative" assumptions, Professors McKenzie and Lee find that the shift to automobile travel caused by higher fares to families of children "could translate into more than 1,600 additional automotive accidents each year, and the increase in accidents could result in more than 175 additional disabling injuries and just under five additional deaths each year. . . . If the fare increase is much greater than the FAA conservatively assumes, the increase in highway injuries and deaths would, of course, be greater."

They further point out that "[a]n unknown number of the victims will surely be infants who would have traveled quite safely on their parents' laps in airplanes. However, many of the automotive

victims will be the infants' parents, brothers, and sisters, but many will also be travelers who had never contemplated air travel as an alternative means of transportation. They just happened to be at the wrong time on the nation's roads, made marginally more congested by the infant-seat requirement."

Professors McKenzie and Lee conclude in their research paper that as a consequence of requiring child safety seats "the resulting increase in automotive deaths, although quite small, could easily be several times--quite possibly more than 35 times--the reduction in airline deaths. Congress and the FAA should not be in the business of creating a travel-safety problem that is bigger than the one being solved."

Professors Robert J. Windle and Martin E. Dresner of the College of Business and Management of the University of Maryland also examined the issue of requiring child safety seats in an April 1990 paper entitled "Mandatory Child Safety Seats in Air Transport: Do They Save Lives?"

Their model considered a variety of possibilities, ranging from different percentages of passengers who would be diverted to automobile travel to varying trip lengths on the road. Using the average auto fatality rate, under virtually every scenario, more lives would be lost by mandating child safety seats.

Only with the most conservative assumptions--only 10% of passengers would be diverted to automobiles; automobile trip lengths replacing airplane travel would average only 77 miles--did the lives lost due to diversion not exceed the lives that would be saved on airplanes. Even in this case, the researchers cautioned against mandating child safety seats, observing that

"it would be better to not change the regulatory system from an injury point of view. Using data from the Statistical Abstract of the United States (United States, Department of Commerce, 1989, p. 590), it is clear that whereas in air transportation the injury rate is only one-half the death rate, in automobile transportation, the injury rate is 39 times the death rate. From an injury point of view, air transport has an even greater safety advantage over auto transport, than from a fatality viewpoint."

Professors Windle and Dresner note that

"[t]he conclusions from this analysis are clear - mandating the use of child safety seats will result in an INCREASE in fatalities, given the assumptions of the paper, and given almost all of the scenarios discussed. Air passengers will be diverted to auto travel, and given

auto travel's poorer safety record, more travellers will die in fatal accidents. Even when it is assumed that tickets for children under 2 will be given away for free, enough traffic will be diverted from the airways to the highways to increase the fatalities total. Only under unrealistically favorable assumptions - all travel on interstate highways, very low diversion rates and very low trip lengths - will the safety seats even come close to saving as many lives in the air as they cost in lives to diverted auto traffic."

In closing, Mr. Chairman, I would like to reemphasize that parents who travel on aircraft with small children should use an approved safety seat for their children. There is no question but that the use of a safety seat will improve their child's chance of surviving an accident. Despite the safety benefit associated with use of a child safety seat, however, we cannot in good conscience support legislation that would mandate the use of child safety seats in view of the research which demonstrates that to do so would result in greater numbers of travelers' deaths. Although the studies differ in terms of numbers of fatalities to be expected, based on different assumptions they have used, all project that there would be additional deaths from requiring safety seats.

As the Subcommittee knows, we are currently involved in a

rulemaking process that has sought public comment on alternative approaches to this issue, and we are giving it a high priority.

That completes my prepared statement, Mr. Chairman. I would be pleased to respond to questions you may have at this time.